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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/517,300

12/07/2004

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EXAMINER

LUKS, JEREMY AUSTIN

ART UNIT

PAPER NUMBER

2837

MAIL DATE

DELIVERY MODE

05/07/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/517,300	Applicant(s) NOSELLI ET AL.	
	Examiner Jeremy Luks	Art Unit 2837	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 March 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 and 14-23 is/are pending in the application.
- 4a) Of the above claim(s) 14-23 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Newly submitted claims 14-23 directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: The Examiner never considered a method for controlling a spatial dispersion of sound creating an interference phenomena as recited in the newly added claims. These limitations will require further search and/or consideration by the Examiner.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 14-23 withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 2, 6 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kakuhari (EP 1037501 A1). Kakuhari teaches a loudspeaker enclosure (Figure 18, #202B could be an enclosure), characterized by the fact that it includes at least one pair of loudspeakers (203, 204) mounted in the same box (202B) and receiving a single signal from a single source (S), the loudspeakers (203, 204); facing in opposite directions; circuitry powering the loudspeakers and powered as separate elements

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(Figures 5 and 18, see separate leg elements coming from sound source #S, defining circuitry and the separate signal paths), said circuitry (4, 206) changing an amplitude and phase of said single signal when powering one of said loudspeakers (2, 204) with respect to another of said loudspeakers (1, 203) (Col. 14, [0048]); in which a first loudspeaker (203) faces towards the front and a second loudspeaker (204) towards the rear, in order to send the sound in the opposite directions, said circuitry including loudspeakers being identical or different from one another and driven by amplification circuits, including an electronic delay circuit (Col. 5 and 6, [0028]). Kakuhari fails to teach wherein the speakers are low frequency speakers; wherein each circuit includes an electronic delay circuit; and wherein the speaker enclosure can be placed alongside or stacked on other enclosures to form horizontal and vertical arrays, or coupled and installed one above the other in multiples to form groups operating in a "piston band" set-up. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use low frequency speakers or subwoofers for the loudspeakers, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or working range involves only routine skill in the art. *In re Aller*, 105 USPQ 233. Further, a change in size is generally recognized as being within the level of ordinary skill in the art. *In re Rose*, 105 USPQ 237 (CCPA 1955). It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide each circuit with an electronic delay circuit, since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8. With respect to Claims 6 and

10, official notice is taken it is well known in the art to place speaker enclosures alongside or stacked on other enclosures to form horizontal and vertical arrays, or coupled and installed one above the other in multiples to form groups operating in a "piston band" set-up. Further, it has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. *Ex Parte Masham*, 2 USPQ F.2d 1647 (1987).

3. Claims 3-5 and 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kakuhari (EP 1037501 A1) in view of Lyngdorf (4,783,820). Kakuhari is relied upon for the reasons and disclosures set forth above. Kakuhari further teaches a method of constructing a loudspeaker enclosure (Figure 18, #202B could be an enclosure), using at least a pair of loudspeakers (203, 204) mounted in the same box (202B), facing in opposite directions compared to the sound emission, one facing forward (203) and the other backwards; the powering of the aforementioned loudspeakers (1,2 and 203, 204) as separate elements (Figures 5 and 18, see separate leg elements coming from sound source #S, defining circuitry and the separate signal paths) with a single signal coming from a single source (S), said powering including powering one of the loudspeakers with a different amplitude and phase of the single signal, by using separate amplification circuits (1, 203) (Col. 14, [0048]), including an electronic delay circuit (Col. 5 and 6, [0028]). Kakuhari fails to teach wherein the speakers are low frequency speakers; wherein each circuit includes an electronic delay circuit; wherein two open conduits are provided on at least two sides of the front

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loudspeaker, and in which the rear loudspeaker faces on to a chamber having two side openings, wherein the front speaker is contained in the box or protrudes from the front of it; wherein said conduits and/or side apertures have variable dimensions to modify the system's acoustic parameters; and the possibility of varying the reciprocal entity of the enclosure's acoustic parameters, modifying the load volume of the loudspeaker and/or dimensions of the conduits/apertures on the front and/or apertures positioned at the rear, in order to obtain different dispersion patterns. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use low frequency speakers or subwoofers for the loudspeakers, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or working range involves only routine skill in the art. In re Aller, 105 USPQ 233. Further, a change in size is generally recognized as being within the level of ordinary skill in the art. In re Rose, 105 USPQ 237 (CCPA 1955). It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide each circuit with an electronic delay circuit, since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. St. Regis Paper Co. v. Bemis Co., 193 USPQ 8. Lyngdorf teaches two open conduits are provided on at least two sides of the front loudspeaker (See Figure 8); wherein the rear loudspeaker (Figure 13, bottom speaker) faces on to a chamber having a side opening; and wherein the front speaker is contained in the box (See Figures 6 and 8), and wherein the loudspeakers are subwoofers. It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the apparatus of Kakuhari, with the apparatus

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of Lyngdorf to provide a loudspeaker unit or system, which is a highly effective bass reflection system capable of reproducing sound with a remarkably improved sound quality. Lyngdorf fails to teach wherein said conduits and/or side apertures have variable dimensions to modify the system's acoustic parameters; and the possibility of varying the reciprocal entity of the enclosure's acoustic parameters, modifying the load volume of the loudspeaker and/or dimensions of the conduits/apertures on the front and/or apertures positioned at the rear, in order to obtain different dispersion patterns. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide conduits and/or side apertures having variable dimensions to modify the system's acoustic parameters; and the possibility of varying the reciprocal entity of the enclosure's acoustic parameters, modifying the load volume of the loudspeaker and/or dimensions of the conduits/apertures, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or working range involves only routine skill in the art. In re Aller, 105 USPQ 233. Further, it has been held that the provision of adjustability, where needed, involves only routine skill in the art. In re Stevens, 101 USPQ 284 (CCPA 1954). Lyngdorf also fails to teach a chamber having two side openings. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have two side openings, since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. St. Regis Paper Co. v. Bemis Co., 193 USPQ 8. Further, it has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate

the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. *Ex Parte Masham*, 2 USPQ F.2d 1647 (1987).

Response to Arguments

4. Applicant's arguments with respect to claims 1-10 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeremy Luks whose telephone number is (571) 272-

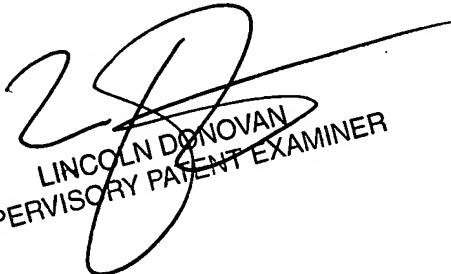
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2707. The examiner can normally be reached on Monday-Thursday 8:30-6:00, and alternating Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lincoln Donovan can be reached on (571) 272-1988. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Jeremy Luks
Patent Examiner
Art Unit 2837
Class 181


LINCOLN DONOVAN
SUPERVISORY PATENT EXAMINER